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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/554,219	08/14/2000	Kunio Ninomiya	43890-416	6492

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Washington, DC 20005-3096

EXAMINER

NATNAEL, PAULOS M

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 08/22/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/554,219

Applicant(s)

NINOMIYA ET AL

Examiner

Paulos M. Natnael

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,3,5,6,8 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,3 and 11 is/are allowed.
- 6) ☒ Claim(s) 5,6 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. Due to a newly found reference, the Final Rejection has been withdrawn.  
Examiner regrets the inconvenience this might cause the Applicant.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In Claim 8, the claimed "detecting a specific position of synchronous signal, from the signal showing detection and establishment of synchronous signal in the reception data and the signal showing position of synchronous signal", is not enabling because, there is no enabling disclosure described in the specification to show detecting a specific position of sync signal from the received data (signal showing detection) and another signal showing position of sync signal. Therefore, one skilled in the art would not be able to make and user the invention as claimed without undue experimentation.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 fails to articulate how the parts are connected together, because claim 6 simply recites, a circuit for processing the difference of all reception data, a circuit for detecting the differential value only for the data coinciding with the code pattern of synchronous signal, and a circuit for detecting the differential value only for the data of synchronous signal.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5 and 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Moriyama, U.S. Pat. No. 4,680,647.

Considering claim 5, Moriyama discloses the following claimed subject matter, note;

a) wherein a differential value of synchronous signals of reception packet data is determined so as to detect a clock phase error of transmission data, and a clock signal is regenerated by phase control on the basis of said clock phase error, is met by the Data sync detector, 15 and the error correction units 3 and 4, (fig.14), and the disclosure that the circuit detects " a pattern of 1100100 of the data synchronizing signal to issue a one-bit detected pulse of "1". " (col. 14, lines 64-65)

Except for;

b) wherein a digital broadcast demodulator further comprising a clock phase error detecting circuit for issuing a clock phase error of transmission data determining the difference of the N-th and N+1-th ( $N > 1$ ) synchronous signals which should be of same level by nature, from the code pattern detection signal of synchronous signal and signal showing position of synchronous signal;

Regarding b) Moriyama does not specifically disclose the claimed "determining the difference of the N-th and N+1-th ( $N > 1$ ) synchronous signals". However, it is known in the art that sync data (or word) is placed either at the front or at the end of the entire information, therefore, considered as LSB or MSB within the frame, the claimed difference of the N-th and N+1-th ( $N > 1$ ) synchronous signals shows no criticality in the claim, and it would have been obvious to the skilled in the art at the time the invention was made to implement the claimed system of Moriyama in order to provide a better detection of the sync data.

***Allowable Subject Matter***

8. Claims **2,3 and 11** are allowable over the prior art.
9. The following is an examiner's statement of reasons for allowance: the prior art fails to disclose a digital broadcast demodulator comprising a synchronous code pattern detecting circuit for detecting the segment synchronous code pattern from the most significant bit signal of the reception packet data, a symbol number counter for counting the number of symbol data in the reception packet data, a synchronous detection circuit for judging the true segment synchronous code pattern by obtaining the segment synchronous code pattern from said synchronous code pattern detecting circuit when said symbol number counter finishes counting of a specified number, and a synchronism detection protection counter for detecting and establishing the segment synchronous signal in the reception data from the output of said synchronous code pattern detecting circuit and count-up of specified number of said symbol number counter, as in claim **2**;


***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
11. Bonnet et al. U.S. Pat. No. 5,321,727 discloses a signal phasing arrangement in a system for doubling the digital channel, wherein sync detectors 3 and 4 output SYA and SYB signals which are input into a phase comparator 9 which output an error signal SVC.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (703) 305-0019. The examiner can normally be reached on 6:30am -3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

  
MICHAEL H. LEE  
PRIMARY EXAMINER

Paulos Natnael  
August 14, 2003